

**Notice of Allowability**

Application No.

09/856,070

Examiner

Chih-Min Kam

Applicant(s)

HOLMS, RUPERT DONALD

Art Unit

1653

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 8/3/04.
2. ☒ The allowed claim(s) is/are 31-34,36,50-62,65 and 66.
3. ☐ The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date 2004-08-16.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 2004-08-16.
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

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An **Examiner's Amendment** to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with David R. Saliwanchik on August 17, 2004.

**Examiner's Amendments to the Specification:**

Please insert the following paragraph at page 1 after the title

“Regulatory/Unfolding Peptides of Ezrin”:

This application is a 371 of PCT/GB00/03566 filed September 15, 2000, which claims the priority of United Kingdom Application No. 992188.0, filed September 17, 1999.

Please replace the term “FIGURE 1 is a diagram” with “FIGURES 1a, 1b and 1c are diagrams” at page 5, line 1 of the first paragraph.

**Examiner's Amendments to the Claims:**

Please cancel claims 67-76.

Claims 31-34, 36, 50-62, 65 and 66 have been amended as follows:

31 (Currently amended). An isolated molecule [which consists of an amino acid sequence] that binds to the hepreceptor, wherein said [hepreceptor binding sequence] molecule consists of 5 to 41 amino acids containing at least 5 consecutive amino acids of SEQ D NO[.]: 29.

32 (Currently amended). The molecule, according to claim 31, wherein [the hepreceptor binding sequence] said at least 5 consecutive amino acids are located at positions 1-13 in SEQ ID NO[.]:29.

33 (Currently amended). The molecule, according to claim 31, wherein said [hepreceptor binding sequence] molecule consists of from 5 to 14 amino acids.

34 (Currently amended). An isolated molecule [which consists of an amino

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acid sequence] that binds to the hepreceptor, wherein said [hepreceptor binding sequence] molecule consists of an amino acid sequence selected from the group consisting of:

MREKEELMLRLQDXaaEEKTKKAERELSEQIQRALQ (SEQ ID NO[.]:2);  
 EREKE (SEQ ID NO[.]:16);  
 EREKEQMMREKEEL (SEQ ID NO[.]:17);  
 KEELM (SEQ ID NO[.]:18);  
 KEELMLRLQDYEE (SEQ ID NO[.]:19);  
 KEELMLRLQDYpEE (SEQ ID NO[.]:20);  
 EELMLRLQDYEE (SEQ ID NO[.]:21);  
 EELMLRLQDYpEE (SEQ ID NO[.]:22);  
 ELMLRLQDYEE (SEQ ID NO[.]:23);  
 ELMLRLQDYpEE (SEQ ID NO[.]: 24);  
 MLRLQ (SEQ ID NO[.]:25);  
 QDYEE (SEQ ID NO[.]:26); and  
 QDYpEE (SEQ ID NO[.]:27).

- 36 (Currently amended). Please replace "SEQ ID NO." with "SEQ ID NO:".
- 50 (Currently amended). Please replace "SEQ ID NO." with "SEQ ID NO:".
- 51 (Currently amended). Please replace "SEQ ID NO." with "SEQ ID NO:".
- 52 (Currently amended). Please replace "SEQ ID NO." with "SEQ ID NO:".
- 53 (Currently amended). Please replace "SEQ ID NO." with "SEQ ID NO:".
- 54 (Currently amended). Please replace "SEQ ID NO." with "SEQ ID NO:".
- 55 (Currently amended). Please replace "SEQ ID NO." with "SEQ ID NO:".
- 56 (Currently amended). Please replace "SEQ ID NO." with "SEQ ID NO:".
- 57 (Currently amended). Please replace "SEQ ID NO." with "SEQ ID NO:".
- 58 (Currently amended). Please replace "SEQ ID NO." with "SEQ ID NO:".
- 59 (Currently amended). Please replace "SEQ ID NO." with "SEQ ID NO:".
- 60 (Currently amended). Please replace "SEQ ID NO." with "SEQ ID NO:".
- 61 (Currently amended). Please replace "SEQ ID NO." with "SEQ ID NO:".

62 (Currently amended). A method for upregulating the immune system in a patient with cancer, Human Immunodeficiency Virus (HIV), or a bacteria infection, wherein said method comprises administering[,] to [a] said patient [with cancer, Human Immunodeficiency Virus (HIV), or a bacterial infection,] an effective amount of a molecule [which consists of an amino acid sequence] that binds to the hepreceptor, wherein said [hepreceptor binding sequence] molecule consists of 5 to 41 amino acids containing at least 5 consecutive amino acids of SEQ ID NO[.]:29; wherein the administration of said molecule results in upregulation of the immune system in the patient.

65 (Currently amended). The method, according to claim [64] 62, wherein said [hepreceptor binding sequence] molecule has between 5 and 14 amino acids.

66. (Currently amended) [The] A method[, according to claim 64] for upregulating the immune system in a patient with cancer, Human Immunodeficiency Virus (HIV), or a bacteria infection, wherein said method comprises administering to said patient an effective amount of a molecule that binds to the hepreceptor, wherein said molecule consists of an amino acid sequence selected from the group consisting of:

MREKEELMLRLQDXaaEEKTKKAERELSEQIQRALQ (SEQ ID NO[.]: 2);

EREKE (SEQ ID NO[.]:16);

EREKEQMMREKEEL (SEQ ID NO[.]:17);

KEELM (SEQ ID NO[.]:18);

KEELMLRLQDYEE (SEQ ID NO[.]:19);

KEELMLRLQDYpEE (SEQ ID NO[.]:20);

EELMLRLQDYEE (SEQ ID NO[.]:21);

EELMLRLQDYpEE (SEQ ID NO[.]:22);

ELMLRLQDYEE (SEQ ID NO[.]:23);

ELMLRLQDYpEE (SEQ ID NO[.]: 24);

MLRLQ (SEQ ID NO[.]:25);

QDYEE (SEQ ID NO[.]:26); and

QDYpEE (SEQ ID NO[.]:27).

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***Objection to Drawings***

Figure 1a, 1b and 1c are objected to because the sequence numbers in the drawings are too small to read. Please submit the formal drawings

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chih-Min Kam whose telephone number is (571) 272-0948. The examiner can normally be reached on 8.00-4:30, Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jon Weber can be reached at 571-272-0925. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chih-Min Kam, Ph. D. *CMK*  
Patent Examiner

CMK  
August 17, 2004

*Jon P. Weber*  
Jon P. Weber, Ph.D.  
Supervising Primary Examiner